

**Abstract**

The invention relates to an analysis apparatus for determining the concentration of a substance in a mixture by measuring the concentration-dependant molecule-specific extinction of radiation in an absorption area (13) filled with the sample to be measured (13). Said apparatus has a radiation source (11) whose radiation is directed to two receivers (17, 19) and divided into corresponding radiation paths (22, 23), wherein the measuring value is formed by comparing the measured intensities of the receivers (17, 19). Both radiation paths (22, 23) from the radiation source (11) to the receivers (17, 19) pass through the substance in the absorption area (13) and have different lengths.

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